551AA Ph.D.- Medicine, Dentistry & Health Sciences

Year and Campus:	2013 - Parkville
CRICOS Code:	056959D
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Research Higher Degree
Duration & Credit Points:	Students are expected to complete this research in 3.00 years full time, or equivalent part time. Credit Points: 300
Coordinator:	-
Contact:	Faculty of Medicine, Dentistry and Health Sciences MDHS Student Centre Level 1, Brownless Biomedical Library The University of Melbourne Victoria 3010 Australia Telephone: + 61 3 8344 5890 Fax number: +61 3 9347 7084 Email: **sc-mdhs@unimelb.edu.au (mailto:sc-mdhs@unimelb.edu.au)** Web: **http://research.mdhs.unimelb.edu.au/graduate-researchers (http://research.mdhs.unimelb.edu.au/graduate-researchers)** Future Student Questions: **http://gradstudies-unimelb.custhelp.com/ (http://gradstudies-unimelb.custhelp.com/)**
Course Overview:	The degree of Doctor of Philosophy signifies that the holder has undertaken a substantial piece of original research, which has been conducted and reported by the holder under proper academic supervision and in a research environment for a prescribed period. The PhD thesis demonstrates authority in the candidate's field and shows evidence of command of knowledge in relevant fields. It shows that the candidate has a thorough grasp of the appropriate methodological techniques and an awareness of their limitations. The thesis also makes a distinct contribution to knowledge. Its contribution to knowledge rests on originality of approach and / or interpretation of the findings and, in some cases, the discovery of new facts. The thesis demonstrates an ability to communicate research findings effectively in the professional arena and in an international context. It is a careful, rigorous and sustained piece of work demonstrating that a research 'apprenticeship' is complete and the holder is admitted to the community of scholars in the discipline. In scope, the PhD thesis differs from a research Masters thesis chiefly by its deeper and more comprehensive treatment of the chosen subject. It is written succinctly, in English, unless approval has been given for the thesis to be written in a language other than English. The normal length of a PhD thesis is 80,000 words, exclusive of words in tables, maps, bibliographies and appendices. Footnotes are included as part of the word limit. The thesis should not exceed 100,000 words (or equivalent) without special approval from the Research Higher Degrees Committee.
Objectives:	See 'Graduate Attributes'
Course Structure & Available Subjects:	The Doctor of Philosophy degree is the major research degree offered within the faculty. Candidates undertake a research program which is likely to make an original and substantial contribution to their discipline. Supervision is normally through a supervisory panel with one principal supervisor. Candidates may write up to a 100,000 word thesis, which is examined externally. The PhD may be undertaken by approved graduates as a supervised research program in any of the departments of the School of Medicine or the research institutes affiliated with the faculty. Candidates should hold a recognised degree, or an appropriate honours or masters degree. Students interested in applying for a PhD are advised to enter into written

	and verbal communication with a prospective supervisor to clarify and develop their research proposal prior to making a formal application. Candidates for the degree of Doctor of Philosophy must demonstrate a capacity for independent research and must make an original contribution to learning. Candidates are required to present a thesis in such a form as the Academic Board may from time to time prescribe. Advice is available from the relevant Head of Department or the School of Graduate Research. Refer to the University's PhD Handbook for further information about the course structure (including enrolment options, study away, thesis examination rules, the role of the supervisor, etc): **http://www.gradresearch.unimelb.edu.au/current/phdhbk/ (http://www.gradresearch.unimelb.edu.au/current/phdhbk/)** **PhD with coursework in Neuroscience** The PhD coursework in neuroscience is offered once annually (Semester 1) and provides a sound basis from which the research project can be conducted efficiently. The coursework consists of a structured 5-week program normally taken in the first three months of candidature. Through a series of built-in assessment tasks, the coursework facilitates progression to confirmation. The program aims to teach essential theoretical concepts and facilitate the understanding of specialised literature. Key areas of contemporary neuroscience research provide a focus for developing advanced research skills and integrating this new multi-disciplinary knowledge into the research project from the start of candidature. For students whose research will be based in the following departments, institutes or buildings: The Florey Institute of Neuroscience and Mental Health, the Florey Department of Neuroscience and Mental Health, Howard Florey Laboratories, Kenneth Myer Building (aka the Melbourne Brain Centre at Parkville), the Melbourne Brain Centre at Austin Health, the Melbourne Brain Centre at Royal Melbourne Hospital, completion of the neuroscience coursework program is compulsory. Successfully passing the coursework program will form part of the confirmation requirements for these students. Subject selection should be discussed with the Supervisor and with the Course Convenor (Dr Kathy Lefevere-Burd: **lefevere@unimelb.edu.au (mailto:lefevere@unimelb.edu.au)**). To select subjects, students should complete the subject selection form available from the Course Convenor; the approval of the Supervisor, Head of Department and the Course Convenor is required. For PhD students of the Melbourne Schools of Engineering and Science, Faculty approval should also be sought. Contact the relevant Graduate School. PhD students studying in the area of Neuroscience who are not based in the above-named departments, institutes or buildings should discuss with their research supervisor whether coursework will be of benefit as part of their PhD studies. Such a discussion must include agreement as to whether successful completion of the coursework will form part of the requirements for confirmation or not. Students should then complete the subject selection form available from the Course Convenor (refer above); the approval of the Supervisor, Head of Department and the Course Convenor is required. For PhD students of the Melbourne Schools of Engineering and Science, Faculty approval should also be sought. Contact the relevant Graduate School. Places in these subjects may be limited and preference will be given to first year PhD students based at the Melbourne Brain Centres, Howard Florey Laboratories and other centres and institutes listed above, for whom the coursework is compulsory and part of the confirmation requirements. This coursework is not available to Masters or other students. Refer to **Subject Options (neuroscience_coursework_structure)** for further information about the course structure for neuroscience.
Subject Options:	This information is relevant only for neuroscience PhD students. **Neuroscience Coursework structure:** **Week 1: Getting Started in the Neuroscience PhD** This week-long introductory program (0 points) forms the foundation for the coursework and is compulsory for all students taking all or any of the following courework subjects. Getting Started in the Neuroscience PhD prepares students for successful completion of the coursework subjects. This five-day orientation program brings together the multi-disciplinary cohort of new PhD students working in neuroscience research. The coursework provides essential information for students to make an accelerated start to their research career. Through a group exercise, the program focuses on building a strong academic research skills base in a supportive environment, as well as a supportive network for the duration of the candidature and beyond.

This introductory coursework program is in addition to any induction or orientation program organised by the student's home department for research.

Getting Started in the Neuroscience PhD is followed by 37.5 pt of coursework comprised of four week-long subjects:

All students except for Psychological Sciences students will complete:

NEUR90007 Design and Analysis for Neurosciences A 12.5 points (../../view/current/NEUR90007)

Psychological Sciences students may choose to complete the following subject instead:

NEUR90008 Design and Analysis for Neurosciences B 6.25 points (../../view/current/NEUR90008)

All students choose between the following A or B subjects. Only one subject may be taken at 12.5 points.

NEUR90009 Brain Imaging and Neural Networks A 12.5 (../../view/current/NEUR90009)
NEUR90010 Brain Imaging and Neural Networks B 6.25 (../../view/current/NEUR90010)
NEUR90011 Molecular and Cellular Neuroscience A 12.5 (../../view/current/NEUR90011)
NEUR90012 Molecular and Cellular Neuroscience B 6.25 (../../view/current/NEUR90012)
NEUR90013 Neuroscience of Behaviour & Cognition A 12.5 (../../view/current/NEUR90013)
NEUR90014 Neuroscience of Behaviour & Cognition B 6.25 (../../view/current/NEUR90014)

All other students should discuss subject options with their supervisor and the Course Convenor and note that the approval of the supervisor, the Head of Department or Faculty nominee, and the Course Convenor is required to undertake one or more subjects.

Entry Requirements:

The criteria for assessing applicants' eligibility for PhD candidature are:

1 **Minimum qualifications**
Applicants are normally required to have completed at least a four-year honours degree at H2A standard from an Australian university, or a qualification or combination of qualifications considered by the RHD Committee to be equivalent. For particular disciplines applicants are also required to complete, at an appropriate level, a Graduate Management Admissions Test (GMAT) or a Graduate Record Entry (GRE) test.

2 **Minimum level of academic achievement**
Applicants should have achieved a minimum H2A (75-79%) grade in the relevant honours or Masters degree.

3 **Relevance of the degree**
The completed degree must be in an area that is relevant to the intended PhD, including sufficient specialisation such that the applicant will have already developed an understanding and appreciation of a body of knowledge relevant to the intended PhD.

4 **Evidence of research ability**
Applicants are normally required to have completed a research project/component that accounts for at least 25% of their year's work at 4th year or at Masters level. Graduates of certain professional degrees at the University of Melbourne, including MBBS, BVSc, LLB, BPhysio and BEng are deemed to have met this requirement.

5 **Currency of applicant's knowledge of the discipline**
The applicant's degree/s and/or professional experience must demonstrate that their knowledge of the discipline in which they plan to undertake their research higher degree is current.

6 **Assessment of level of suitability**
Based on interview or other verbal communication, an assessment should be made of the level of understanding, motivation and time commitment of the student for the proposed program of study. For example, a full-time student would be expected to devote at least 40 hours a week and a part-time student about half of this.

	Applicants must also meet the University's **English Language requirements (http://www.futurestudents.unimelb.edu.au/courses/pgenglishreq.html)** .
Core Participation Requirements:	All PhD candidates are required to complete the equivalent of at least 12 months full-time (24 months part-time) advanced study and research in the University unless studying at an outside institution approved by the Research Higher Degrees Committee (RHDC). The RHDC will not approve entirely distance supervision or entirely on-line supervision for research higher degree students.Throughout their candidature candidates are expected to attend the University in order to benefit from planning, conducting and writing up their research within a University community and environment.The residency requirement is deemed especially important during the period of probationary candidature. During probationary candidature the student is expected to interact on a regular basis with the supervisor, the department (including staff and other research students) and the University, so as: to build the skills and knowledge necessary to carry out the proposed research program to acquire an understanding of the standards and requirements for a PhD awarded by the University to make use of support programs and facilities provided by the Melbourne School of Graduate Research throughout candidature. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability will impact on meeting the requirements of this course are encouraged to discuss this matter with a Faculty Student Adviser and the Disability Liaison Unit.
Graduate Attributes:	Doctoral degrees at the University of Melbourne seek to develop graduates who demonstrate academic leadership, increasing independence, creativity and innovation in their research work.The University expects its doctoral graduates to have the following qualities and skills: an advanced ability to initiate research and to formulate viable research questions; a demonstrated capacity to design, conduct and report sustained and original research; the capacity to contextualise research within an international corpus of specialist knowledge; an advanced ability to evaluate and synthesize research-based and scholarly literature; an advanced understanding of key disciplinary and multi-disciplinary norms and perspectives relevant to the field; highly developed problem-solving abilities and flexibility of approach; the ability to analyse critically within and across a changing disciplinary environment; the capacity to disseminate the results of research and scholarship by oral and written communication to a variety of audiences; a capacity to cooperate with and respect the contributions of fellow researchers and scholars; a profound respect for truth and intellectual integrity, and for the ethics of research and scholarship; an advanced facility in the management of information, including the application of computer systems and software where appropriate to the student's field of study; an understanding of the relevance and value of their research to national and international communities of scholars and collaborators; an awareness where appropriate of issues related to intellectual property management and the commercialisation of innovation; and an ability to formulate applications to relevant agencies, such as funding bodies and ethics committees. The University provides a variety of opportunities in addition to the supervised research program, to facilitate a students' acquisition of these attributes.
Links to further information:	www.gradresearch.unimelb.edu.au
Notes:	Application Procedure Detailed information for prospective PhD students regarding the application process is available at: **http://research.mdhs.unimelb.edu.au/prospective-RHDs (http://research.mdhs.unimelb.edu.au/prospective-RHDs)** Applications are accepted year-round. Prior to submitting an application, applicants should discuss their research interests with **a potential supervisor (http://www.findanexpert.unimelb.edu.au/support/supervisor.html)** of the department in which they would like to enrol. The **Topic Areas (http://research.mdhs.unimelb.edu.au/topic-areas)** website may assist you to find an appropriate supervisor. Prospective PhD candidates should also investigate department websites for information on current research and contact details. Refer to the **list of departments and schools (http://www.mdhs.unimelb.edu.au/schools-departments-and-centres)** . Hear what it is like to do a PhD: **http://research.mdhs.unimelb.edu.au/phd-perspectives (http://research.mdhs.unimelb.edu.au/phd-perspectives)** Which scholarship can I apply for? Students can find information about graduate research scholarships offered by the University of Melbourne at the **Melbourne Scholarships Office (http://cms.services.unimelb.edu.au/**

	scholarships/pgrad/) and on the **Faculty's website (http://research.mdhs.unimelb.edu.au/scholarships)** : Facilities and Supports: The Melbourne School of Graduate Research makes available a broad range of **Programs & Services (http://gradresearch.unimelb.edu.au/programs/index.html)** available to graduate research students.